

REMARKS

Summary Of Office Action

Claims 1-37 are pending in this application.

Claims 1, 10, 19, 28, and 29 are objected to for a minor grammatical error.

Claims 1-37 are rejected as being unpatentable under 35 U.S.C. § 102(b) as being anticipated by Oprescu et al. U.S. Patent 6,411,242 (hereinafter "Oprescu").

Liu et al. U.S. Patent 6,639,532 (hereinafter "Liu") and Holloway et al. U.S. Patent 6,750,796 (hereinafter "Holloway") were also made of record.

Summary Of Reply To Office Action

Applicant amended claims 1, 10, 19, 28, and 29.

The Examiner's rejection is respectfully traversed.

Reply To Office Action

Applicant's invention is directed towards a circuit for converting an analog input to a digital output. An analog chopper circuit receives an input and provides an output at a first predetermined rate  $f_{chop}$ . A quantizer circuit receives the output of the chopper and provides an output at a second predetermined rate  $f_{quant}$ . A user-customizable buffer/amplifier is placed between the analog chopper and the quantizer circuit.

A first digital filter and first decimator receive the input from the quantizer circuit and provide an output at a rate  $f_{\text{quant}}$  divided by  $M$  ( $f_{\text{quant}}/M$ ). A second digital filter receives the output of the first digital filter. A second decimator receives the output of the second digital filter and provides a digital output at a rate  $f_{\text{quant}}$  divided by  $M$  times  $P$  ( $f_{\text{quant}}/(M \cdot P)$ ). See applicant's claim 1.

Applicant amended independent claims 1, 10, 19, 28, and 29 such that the customized buffer/amplifier is a "user-customizable buffer/amplifier that is placed across" a first terminal that receives the output of the analog chopper and a second terminal that receives the output of the customizable buffer/amplifier. The claims were amended in this fashion to correct a minor grammatical error. Additionally, these claims were amended such that the quantizer circuit that has an input coupled to the second terminal is included in an analog to digital converter.

In rejecting applicant's invention, the Examiner relies on Oprescu. Oprescu teaches new and innovative methods and apparatus for improving the direct current offset performance of an oversampling analog-to-digital converter. Oprescu does not show "a first terminal and a second terminal, wherein a user-customizable buffer/amplifier is placed across the first and second terminals such that the output of the analog chopper at a first predetermined rate  $f_{\text{chop}}$  is received at

the first terminal and the output of the customized buffer/amplifier is received at the second terminal," and "an analog to digital converter including a quantizer circuit, the quantizer circuit having an input coupled to the second terminal, and providing an output at a second predetermined rate  $f_{quant}$ " (Claim 1; see similar features in independent claims 10, 19, 28, and 29).

Thus, Oprescu does not show all of the features of applicant's independent claims, as amended.

The Examiner also cited, but did not rely upon, Liu and Holloway. Liu and Holloway do not show all of the features of applicant's independent claims, as amended, including the features described above in connection with the rejection in view of Oprescu.

Accordingly, Oprescu, Liu, and Holloway do not show all of the features of applicant's claims, as amended. Accordingly, independent claims 1, 10, 19, 28, and 29 are in condition for allowance.

### Conclusion

In view of the foregoing, independent claims 1, 10, 19, 28, and 29, as amended, are in condition for allowance. Dependent claims 2-9, 11-18, 20-27, and 30-37 which depend therefrom, are therefore also in condition for allowance. This application is therefore in condition for allowance.

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Reconsideration and prompt allowance of this application are respectfully requested.

Respectfully submitted,



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